

2012 Consumer Confidence Report

Water System Name: Howell Mountain Mutual Water Co. Report Date: 6/18/2013

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2012.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Surface Water/Groundwater

Name & location of source(s): The water source for HMMWC is the Friesen Lakes, 8 small lakes located approximately one mile north of the city of Angwin. All water used during the year was drawn from Lake Henne, Deer Lake and well #2.

Drinking Water Source Assessment information: The Watershed Sanitary Survey from 2009 provides information to protect the integrity of our drinking water supplies, and is available for review by calling the HMMWC office at 707-965-2205.

Time and place of regularly scheduled board meetings for public participation: Public meeting information is provided in the annual newsletters, board meetings tentatively scheduled the last Tuesday of every month.

For more information, contact: Karl Fernandez, HMMWCo Manager Phone: (707) 965-2205

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

DLRs: Detection levels for purpose of reporting.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides* that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the state Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, and 5 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria After Treatment	(In a mo.)	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> After Treatment	(In the year)	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) After Treatment 08/20- 08/22/2011*	10	0	None	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) After Treatment 08/20- 08/22/2011*	10	.095	None	1.3	0.17	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Analyses Results		MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm) Prior to Treatment	10/23/2012	8.2		none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm) Prior to Treatment	10/23/2012	25		none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

**The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.*

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Average	Analyses Results	MCL [MRDL]	DLR	Typical Source of Contaminant
Aluminum (ppb) Prior to Treatment	10/23/2013	N/A	61	1000	50	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb) Prior to Treatment	10/23/2012	N/A	2.1	10	2.0	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm) Prior to Treatment	10/23/2013	.16	.11 Lake Intake .22 Well	2	.1	Erosion of natural deposits
Nitrate (ppm) Prior to Treatment	10/23/2013	4.25	2.0 Lake Intake 6.5 Well	45	2.0	Runoff and leaching from fertilizer use; erosion of natural deposits
Total Organic Carbon (ppm) Control of DBP precursors After Treatment	Monthly	2.7	2.4	TT	N/A	Various natural and manmade sources
TTHMs (ppb) (Total Trihalomethanes) After Treatment	Quarterly	74	High Quarter Aug 81 Low Quarter Nov 62	80	N/A	By-product of drinking water chlorination. The lowest quarter was in Nov. at 62. mg/l
HAAs (ppb) Haloacetic Acids After Treatment	Quarterly	54.1	High Quarter Aug 67.3 Low Quarter May 41.1	60	N/A	By-product of drinking water disinfection. The lowest quarter was in May at 41.1 mg/l

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Average	Analyses Results	MCL	DLR	Typical Source of Contaminant
Iron (ppb) Prior to Treatment	10/23/2012	N/A	420	300	100	Leaching from natural deposits; industrial wastes
Manganese (ppb) Prior to Treatment	10/23/2012	N/A	180	50	20	Leaching from natural deposits
Odor (TON) Prior to Treatment	10/23/2012	2.1	3.0 Lake Intake 1.2 Well	3	1	Naturally-occurring organic materials
Turbidity (NTU) After Treatment, in Distribution System	Weekly	1.11	2.25 High .030 Low	5	N/A	Soil runoff. Turbidity is a measure of the cloudiness of the water; it is a good indicator of the effectiveness of our filtration system
Zinc (ppb) Prior to Treatment	10/23/2013	N/A	750	5000	50	Runoff/leaching from natural deposits; industrial wastes

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Average	Range of Detections	Notification Level	Health Effects Language
Sulfate (ppm) Prior to Treatment	10/23/2013	1.8	1.4 Lake Intake 22. Well	N/A	Runoff/ leaching from natural deposits; industrial wastes.

**Any violation of an MCL, MRDL, or TT is asterisked and bold. Additional information regarding the violation is provided later in this report.*

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Howell Mountain Mutual Water Co. is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Summary Information for Contaminants Exceeding an MCL, MRDL, or AL or Violation of Any TT or Monitoring and Reporting Requirement

* Iron in the lake was found at levels that exceeded the secondary MCL of 300. ug/L. The secondary MCL was set on the basis of protecting you against unpleasant aesthetic effects (e.g., color, taste, and odor) and the staining of plumbing fixtures (e.g., tubs and sinks) and clothing while washing. The high iron level is a result of leaching of natural deposits.

* Manganese in the lake was found at levels that exceeded the secondary MCL of 50 ppb. The secondary MCL was set on the basis of protecting you against unpleasant aesthetic effects (e.g., color, taste, and odor) and the staining of plumbing fixtures (e.g., tubs and sinks) and clothing while washing. The high manganese level is a result of leaching of natural deposits.

For Systems Providing Surface Water as a Source of Drinking Water

TABLE 7 - SAMPLING RESULTS SHOWING WATER QUALITY AFTER TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique ^(a) (Type of approved filtration technology used)	Conventional multi-media filtration.
Turbidity Performance Standards ^(b) (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.3 NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU for more than eight consecutive hours. 3 – Not exceed 2.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	99%
Highest single turbidity measurement during the year	.29
Number of violations of any surface water treatment requirements	0

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.